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/	10-12(A204)(b-), 10-12(A204)(b-)			2		
E - Mail						
Home Page	http://home.konkuk.ac.kr/~ysmin/					
	Anytime					
	Physical Chemistry			Peter Atkins & Julio De Paula	Oxford Press	
	Introduction to Chemical Engineering Thermodynamic			J.M. Smith, et al.	McGraw - Hill	
	Introduction to the thermodynamics of materials			D.R. Gaskell	Taylor & Francis	
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	<ul style="list-style-type: none"> - Understanding the thermodynamic laws. - Applying the 1st & 2nd laws to phase transformations and chemical reactions. 					
	<p>Understanding of fundamental properties of materials using basic laws of unit operation, thermodynamics and reaction engineering such as thermodynamic laws, phase equilibrium, chemical equilibrium, surface thermodynamic and reaction kinetics.</p>					
	<p>This course will be given in a form of B-learning.</p> <p>Lectures in classroom: 27 units in English (focusing on dicussion and problem-solving).</p> <p>Lectures in the e-campus: 27 units in Korean (focussing on theoretical principles).</p>					



Homework: 7 problem sets.

Exams: Mid-term (Ch.1 ~ 3) and Final (Ch. 4 ~ 7)

You can download the lecture notes before every lecture in <http://home.konkuk.ac.kr/~ysmin> or the web-site of e-campus.

				PAGE		
1	03/04~03/10	Ch. 1. The properties of gases	- The perfect gas - Real gases	p1~p17		
2	03/11~03/17	Ch. 1. The properties of gases	- The van der Waals equation - The principles of corresponding states - Internal energy	p17~p33		
3	03/18~03/24	Ch. 2 The first law	- Expansion work and heat transactions - Enthalpy and adiabatic changes	p33~p48		
4	03/25~03/31	Ch. 2. The first law	- Thermochemistry - State functions and exact differential	p48~p75		
5	04/01~04/07	Ch. 3. The second law	- Entropy	p75~p92		
6	04/08~04/14	Ch. 3. The second law	- Helmholtz and Gibbs energy - Combining the first and second laws	p93~p116		
7	04/15~04/21	Q	- Ch. 1 ~ 3			
8	04/22~04/28	Midterm EXAM	- Ch. 1 ~ 3			
9	04/29~05/05	Ch. 4. Physical Transformations	- Phase diagrams - Phase transitions	p117~p135		
10	05/06~05/12	Ch. 5. Simple mixtures	- Chemical potentials - Colligative properties	p136~p158		
11	05/13~05/19	Ch. 5. Simple Mixtures	- Activities	158~173		
12	05/20~05/26	Ch. 6. Phase diagrams	- Phase rule - p-X, T-X diagrams	p174~p184		
13	05/27~06/02	Ch. 6. Phase diagrams	- Liquid-liquid phase diagrams - Liquid-solid phase diagrams	p185~p199		
14	06/03~06/09	Ch. 7. Chemical equilibrium	- Spontaneous chemical reactions	p200~p209		
15	06/10~06/16	Ch. 7. Chemical equilibrium	- The response of equilibria to the conditions - Equilibrium electrochemistry	p210~240		
16	06/17~06/23	Final Exam	- Final exam			